Panasonic

65-inch Multi Touch Screen LED Display

TH-65LFB70E

TENTATIVE

Product specification (design and specification subject to change without notice)

■DISPLAY

Screen Size (Diagonal)	65 inch (1,638 mm)
Panel Type	LCD VA panel/E-LED
Aspect Ratio	16:9
Effective Display Area (W x H)	1,428 x 803 mm
Number of Pixels (H x V)	1,920 x 1,080 pixel
Brightness	350 cd/㎡
Contrast Ratio	4000:1
Respons Time	6.5 ms (G to G)
Viewing Angle	178 degrees
Panel life*	approx. 50,000 hours

*An approximate time until the panel brightness decreases to half of its original value.

■TOUCH PANEL

Detection Method	Infrared blocking detection method
PC Connection Port	USB (Compliance with 3.0)

■CONNECTION TERMINAL

VIDEO IN	BNC x 1	1.0 Vp-p (75Ω)	
AUDIO IN (L/R)	Stereo mini jack (M3) x 1 (Shared with COMPONENT/RGB IN)	0.5 Vrms	
COMPONENT/RGB IN	BNC x 1 set	Y/G	: 1.0 Vp-p (75Ω)
		$P_B/C_B/B$	: 0.7 Vp-p (75Ω)
		$P_R/C_R/R$	: 0.7 Vp-p (75Ω)
AUDIO IN (L/R)	Stereo mini jack (M3) x 1 (Shared with VIDEO IN)	0.5 Vrms	
HDMI IN	HDMI TYPE A connector x 2		
DVI-D IN	DVI-D 24pin (Digital) x 1	Copliance with DVI Revision 1.0, Compatible with HDCP 1.1	
AUDIO IN (L/R)	Stereo mini jack (M3) x 1 (Shared with PC IN)	0.5 Vrms	
PC IN	Mini D-sub 15pin (female) x 1 Plug & Play (VESA DDC 2B)	Y/G	: with sync 1.0 Vp-p (75Ω) : without sync 0.7 Vp-p (75Ω)
		$P_B/C_B/B$	: 0.7 Vp-p (75Ω)
		$P_R/C_R/R$	: 0.7 Vp-p (75Ω)
		HD/VD	: 1.0 - 5.0 Vp-p (high impedance)
AUDIO IN (L/R)	Stereo mini jack (M3) x 1 (Shared with DVI-D IN)	0.5 Vrms	
PC OUT	Mini D-sub 15pin x 1	R	: 0.7 Vp-p (75Ω)
		G	: 0.7 Vp-p (75Ω)
		B	: 0.7 Vp-p (75Ω)
		HD/VD	: 3.5 - 5.0 Vp-p
Function Slot : SLOT2.0	1 (Vacant)		
USB A	TYPE A USB connector x 1 (For Memory Viewer)		
USB B	TYPE B USB connector x 1 (For Touch panel)		
External Speaker	8Ω, 20 W [10 W + 10 W] (10 %THD)		

■CONTROL

SERIAL	D-sub 9pin (male) x 1 (EXTERNAL CONTROL TERMINAL), RS-232C Compatible
DIGITAL LINK	RJ45 x 1 (Shared with LAN)
LAN	RJ45 x 1, 100BASE-TX, Compatible with PJLink (Shared with DIGITAL LINK)

■ELECTRICAL

Power Requirements	220-240 V AC, 50/60 Hz.
Power Consumption	T.B.D.
Powe Off Condition	approx. 0.3 W
Stand-by Condition	approx. 0.5 W

■AUDIO

Built in Speaker	20W [10 W + 10 W] (10 %THD)

■MECHANICAL

Dimensions (W x H x D)	1,517 x 892 x 106 mm
Bezel Width	approx. 39 mm
Carton Dimensions (W x H x D)	T.B.D.
Weight	T.B.D.
Gross Weight	T.B.D.
Cabinet Material/Color	Aluminum/Black
Pitch for Wall-Hanging	684 x 300mm
Protection Glass Thickness	approx. 3.2 mm/Anti Glare

■ENVIRONMENTAL

Operating Environment	Temperature	: 0℃ to 40℃
	Humidity	: 20% to 80% (Non condensation)
Storage environment	Temperature	: -20℃ to 60℃
	Humidity	: 20% to 80% (Non condensation)

■BUILT-IN WIRELESS LAN FUNCTION

Standard	2.4 GHz: IEEE802.11b/g /n, 5.0 GHz: IEEE602.11a/nN/A
Infrastructure Mode	WPA2-PSK (TKIP/AES), WPA-PSK (TKIP/AES), WEP (64-bit/128-bit), WPA-EAP/WPA2-EAP (PEAP [MS-CHAPv2/GTC]/EAP-FAST [MS-CHAPv2/GTC]/EAP-TTLS [MD5/MS-CHAPv2], 128-bit/64-bit)

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MAIN FEATURE

Easy Whiteboard Functions	Yes
Memory Viewer	Moving Image : mov, avi, mp4, mpg, mpeg, wmv Still Picture : jpg, bmp
Wireless Connections	Yes
DIGITAL LINK	Yes
Secondary Display	Yes
Picture in Picture	Yes
Digital Zoom	Yes
1:1Pixel Mode	Yes
Auto Set Up	Yes
Power Management	Yes
Power Management (PC/DVI-D)	Yes
Input Lock	Yes
Button/Input lock	Yes
Remote-control User Level	Yes
No Signal Power Off	Yes
Orientation	Landscape
Input Search	Yes

STANDARD (CERTIFICATIONS)

SAFETY REGULATIONS	EN60065, IEC60065, GOST
RADIATION REGULATIONS	EN55022 Class-B, EN55024, EN61000-3-2, EN61000-3-3

INCLUDED ACCESSORIES

- Power supply cord (2 m) - Remote Control Transmitter
- Batteries for the Remote Control Transmitter (R6 (UM) Size x 2)
- Software CD-ROM (Whiteboard software/Wireless Manager software/Operating Instruction) x 1 - USB Cable (2 m) x 1
- Pen x 2 - Eraser x 1 - Pen Stand x 1 - Operating Instruction book

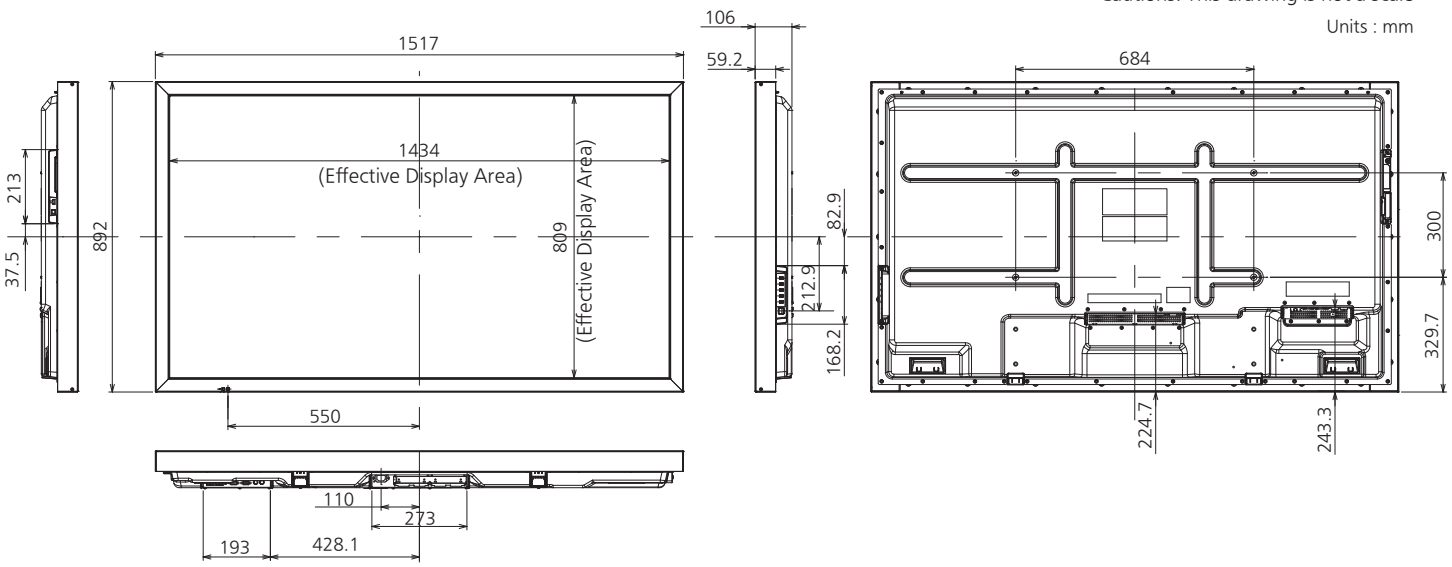
OPTIONAL ACCESSORIES

Mobile Stand	TY-ST65PB2
Wall-Hanging bracket (Vertical/Angled)	TY-WK65PR20
Pedestal	TY-ST65P20
Dual Video Terminal Board	TY-FB9BD
DVI-D Terminal Board	TY-FB11DD
Dual HDMI Terminal Board	TY-FB10HMD
HD-SDI Terminal Board	TY-FB9HD
HD-SDI Terminal Board with Audio	TY-FB10HD
Dual Link HD-SDI Terminal Board	TY-FB11DHD
Plug-in PC	PLUGTHA54
Digital Link Interface Box	ET-YFB100G
Easy Wireless Stick	ET-UW100E

DIMENSIONS

Cautions: This drawing is not a scale

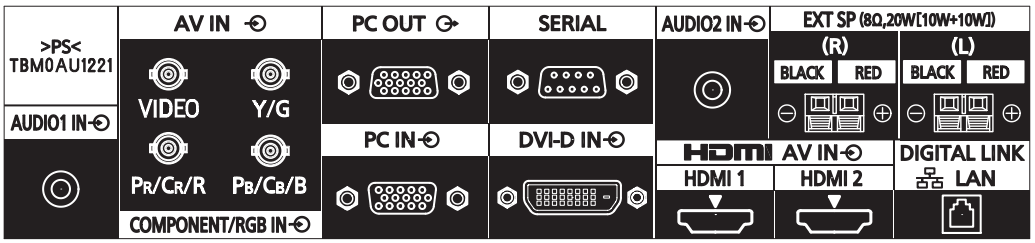
Units : mm



CONNECTION TERMINAL

SIDE

BACK



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Applicable Input Signals

* Mark: Applicable input signal

	Signal name	Horizontal frequency (kHz)	Vertical frequency (Hz)	COMPONEN T / RGB IN / PC IN (Dot clock (MHz))	DVI-D IN (Dot clock (MHz))	HDMI
1	525 (480) / 60i	15.73	59.94	* (13.5)	* (27.0)	*
2	525 (480) / 60p	31.47	59.94	* (27.0) *5	* (27.0)	*
3	625 (575) / 50i	15.63	50.00	* (13.5)		
4	625 (576) / 50i	15.63	50.00		* (27.0)	*
5	625 (575) / 50p	31.25	50.00	* (27.0)		
6	625 (576) / 50p	31.25	50.00		* (27.0)	*
7	750 (720) / 60p	45.00	60.00	* (74.25)	* (74.25)	*
8	750 (720) / 50p	37.50	50.00	* (74.25)	* (74.25)	*
9	1,125 (1,080) / 60p	67.50	60.00	* (148.5) *1	* (148.5)	*
10	1,125 (1,080) / 60i	33.75	60.00	* (74.25) *1	* (74.25)	*
11	1,125 (1,080) / 50p	56.26	50.00	* (148.5) *1	* (148.5)	*
12	1,125 (1,080) / 50i	28.13	50.00	* (74.25) *1	* (74.25)	*
13	1,125 (1,080) / 24sF	27.00	48.00	* (74.25) *2		
14	1,125 (1,080) / 30p	33.75	30.00	* (74.25) *1	* (74.25)	
15	1,125 (1,080) / 25p	28.13	25.00	* (74.25) *1	* (74.25)	
16	1,125 (1,080) / 24p	27.00	24.00	* (74.25) *1	* (74.25)	*
17	1,250 (1,080) / 50i	31.25	50.00	* (74.25) *3		
18	2,048 × 1,080 / 24sF *7	27.00	48.00			
19	2,048 × 1,080 / 24p *7	27.00	24.00			
20	640 × 400 @70 Hz	31.46	70.07	* (25.17)		
21	640 × 480 @60 Hz	31.47	59.94	* (25.18) *6	* (25.18)	*
22	640 × 480 @72 Hz	37.86	72.81	* (31.5)		
23	640 × 480 @75 Hz	37.50	75.00	* (31.5)		
24	640 × 480 @85 Hz	43.27	85.01	* (36.0)		
25	800 × 600 @56 Hz	35.16	56.25	* (36.0)		
26	800 × 600 @60 Hz	37.88	60.32	* (40.0)	* (40.0)	*
27	800 × 600 @72 Hz	48.08	72.19	* (50.0)		
28	800 × 600 @75 Hz	46.88	75.00	* (49.5)		
29	800 × 600 @85 Hz	53.67	85.06	* (56.25)		
30	852 × 480 @60 Hz	31.47	59.94	* (33.54) *6	* (34.24)	*
31	1,024 × 768 @50 Hz	39.55	50.00		* (51.89)	*
32	1,024 × 768 @60 Hz	48.36	60.00	* (65.0)	* (65.0)	*
33	1,024 × 768 @70 Hz	56.48	70.07	* (75.0)		
34	1,024 × 768 @75 Hz	60.02	75.03	* (78.75)		
35	1,024 × 768 @85 Hz	68.68	85.00	* (94.5)		
36	1,066 × 600 @60 Hz	37.64	59.94	* (53.0)	* (53.0)	*
37	1,152 × 864 @60 Hz	53.70	60.00		* (81.62)	*
38	1,152 × 864 @75 Hz	67.50	75.00	* (108.0)		
39	1,280 × 768 @60 Hz	47.70	60.00	* (80.14)		
40	1,280 × 800 @60 Hz (1)	49.31	59.91	* (71.0)	* (71.0)	*
41	1,280 × 800 @60 Hz (2)	49.70	59.81	* (83.5)	* (83.5)	*
42	1,280 × 960 @60 Hz	60.00	60.00	* (108.0)		
43	1,280 × 960 @85 Hz	85.94	85.00	* (148.5)		
44	1,280 × 1,024 @60 Hz	63.98	60.02	* (108.0)	* (108.0)	*
45	1,280 × 1,024 @75 Hz	79.98	75.03	* (135.0)		
46	1,280 × 1,024 @85 Hz	91.15	85.02	* (157.5)		
47	1,366 × 768 @50 Hz	39.55	50.00		* (69.92)	*
48	1,366 × 768 @60 Hz	48.36	60.00	* (86.71)	* (87.44)	*
49	1,400 × 1,050 @60 Hz	65.22	60.00		* (122.61)	*
50	1,440 × 900 @60 Hz (1)	55.47	59.90	* (88.75)	* (88.75)	*
51	1,440 × 900 @60 Hz (2)	55.93	59.89	* (106.5)	* (106.5)	*
52	1,600 × 1,200 @60 Hz	75.00	60.00	* (162.0)	* (162.0)	*
53	1,600 × 1,200 @65 Hz	81.25	65.00	* (175.5)		
54	1,920 × 1,080 @60 Hz	67.50	60.00	* (148.5) *4	* (148.5)	*
55	1,920 × 1,200 @60 Hz	74.04	59.95		* (154.0)	*
56	Macintosh13" (640 × 480)	35.00	66.67	* (30.24)		
57	Macintosh16" (832 × 624)	49.72	74.54	* (57.28)		
58	Macintosh21" (1,152 × 870)	68.68	75.06	* (100.0)		

* 1: Based on SMPTE 274M standard.
* 2: Based on SMPTE RP211 standard.
* 3: Based on SMPTE 295M standard.
* 4: The input signal is recognized as 1,125 (1,080) / 60p.
* 5: When selected the RGB format and 525p signal input to the PC IN terminal, it is recognized as VGA 60Hz signal.
* 6: When inputted VGA 60Hz format signal from the other than PC IN terminal, it is recognized as 525p signal.
* 7: Based on SMPTE 292M and 372M standards. These signals can be received when the Dual Link HD-SDI Terminal Board (TY-FB11DHD) is installed.

Note: Signals without above specification may not be displayed properly.

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